

<sup>1</sup>  
IAP20 Rec'd PCT/PTO 30 DEC 2005

## NEW CLAIMS

- 5 1. Interface for a lamp operating device (13),  
having
- at least one input-side terminal (1, 2) for the  
connection of bus lines or for connection with a button  
or switch,
  - 10 - an evaluation logic (3) for the processing of signals  
present at the input-side terminal (1, 2) and for the  
generation of output-side signals for the control of the  
lamp operating device (3) and
  - at least one electrical isolation element (4), in order  
15 to electrically decouple the input-side terminal (1, 2)  
from the lamp operating device (13),  
wherein the evaluation logic (3) is arranged on that side  
of the electrical isolation element (4) which is towards  
the at least one input-side terminal (1, 2),  
20 characterised in that,  
the evaluation logic (3) is supplied with voltage by  
means of the at least one input-side signal terminal (1,  
2).
- 25 2. Interface according to claim 1,  
characterized in that,  
the evaluation logic (3) is configured to at least  
partially switch off a connected lamp operating device  
(13).
- 30 3. Interface according to claim 2,  
characterized in that,  
the evaluation logic (3) is configured to transmit by  
means of the electrical isolation element (4) signals or

commands to the connected lamp operating device (13) by means of which this device is separable from the mains voltage (15).

- 5    4. Interface according to claim 2 or 3,  
characterized in that,  
the lamp operating device (13) is separable from the  
mains by means of a relay or an optocoupler controlled  
triac.

10

5. Interface according to any preceding claim,  
characterized in that,  
the evaluation logic (13) is configured to transmit  
setting values to the connected lamp operating device  
15 (13) by means of the same and/or by means of a separate  
electrical isolation element (4).

6. Interface according to any preceding claim,  
characterized in that,  
20 the electrical isolation element (4) is configured also  
to transmit, in bi-directional manner, signals from a  
connected lamp operating device (13) to the input-side  
terminals and, if applicable, to a bus connected thereto.

- 25 7. Interface according to any preceding claim,  
characterized in that,  
in the idle condition, in which no signals are  
transmitted, a high level signal is present at the input-  
side terminals, which signal supplies the evaluation  
30 logic (3) with energy.

8. Interface according any of claims 1 to 6,  
characterized in that,

in the idle condition, in which no signals are transmitted, there is present at the input-side terminals a low level signal, and the evaluation logic (3) can be activated by means of a change to a high level signal.

5

9. Interface for a lamp operating device,  
having

- at least one input-side signal terminal (1, 2) for the connection of a bus line or for connection with a button  
10 or switch, and

- an evaluation logic (3) for the processing of signals present at the at least one input-side terminal (1, 2) and for the generation of output-side signals for the control of the lamp operating device (3),

15  
characterized in that,

the evaluation logic (3) has a voltage supply independent of the mains voltage supply of the lamp operating device (13).

20 10. Interface according to claim 9,  
characterized in that,  
the evaluation logic (3) is supplied with voltage by means of the at least one input-side signal terminal (1, 2).

25

11. Lamp operating device, in particular ballast for a fluorescent tube, having an interface (12) in accordance with any preceding claim.

30 12. Method for the control of a lamp operating device via an interface (12), having the following steps:  
- application of bus signals or button/switch signals to at least one input-side terminal (1, 2) of the interface (12),

- processing of signals present at the input-side terminal and generation of output-side signals for the control of the lamp operating device (13), and thereupon  
- transmission of the processed control signals by means  
5 of an electrical isolation element (4) to the lamp operating device (13),  
characterized in that,  
the voltage supply for the processing of the signals present at the input-side terminal and for the generation  
10 of the output-side signals for the control of the lamp operating device (13) is effected via the at least one input-side signal terminal (1,2).

13. Method according to claim 12,  
15 characterized in that,  
by means of the electrical isolation element (4) signals or commands are transmitted to the connected lamp operating device (13), by means of which this device is separated from the mains voltage (15).

20 14. Method according to claim 13,  
characterized in that,  
the lamp operating device (13) is separated from the mains by means of a relay or an optocoupler controlled  
25 triac.

15. Method according to any of claims 12 to 14,  
characterized in that,  
by means of the electrical isolation element (4) setting  
30 values are transmitted to the connected lamp operating device (13).

16. Method according to any of claims 12 to 15,  
characterized in that,

signals are transmitted from a connected lamp operating device (13) to the input-side terminals (1, 2) and, if applicable, to a bus connected thereto.

5 17. Method according to any of claims 12 to 16,  
characterized in that,  
in the idle condition, in which no signals are  
transmitted, a high level signal is present at the input-  
side terminals (1, 2), which signal supplies the  
10 evaluation logic (3) with energy.

18. Method according to any of claims 12 to 16,  
characterized in that,  
in the idle condition, in which no signals are  
15 transmitted, a low level signal is present at the input-  
side terminals (1, 2) and the evaluation logic (3) is  
activated by means of a change to a high level signal.